March 27, 2003

Biosketches of the Drinking Water Committee Members
Science Advisory Board (SAB)
U.S. Environmental Protection Agency

Dr. Mary E. Davis: Dr. Mary E. Davis is a Professor of Toxicology in the Department of Physiology and Pharmacology at West Virginia University Health Sciences Center. Her research interests are in the mechanisms of toxicity, focusing on renal and cardiovascular systems and liver and emphasizing agents of environmental and occupational interest, including halomethanes and disinfection by-products. She earned a doctorate in Pharmacology from Michigan State University in 1977.

Dr. Davis is a member of the Editorial Board of *Toxicology and Applied Pharmacology,* and has served on the Editorial Board of *Toxicology*. She served as Treasurer for the Society of Toxicology. Dr. Davis previously served on two NRC Subcommittees on the health effects of disinfectants and their by-products and use of physiologically-based pharmacokinetics in risk assessment. She served as an external reviewer of EPA's risk assessment of the WTI hazardous waste incinerator and of EPA's proposed guidelines for human health risk assessment protocol for hazardous waste incinerators. In addition to serving on the DWC, Dr. Davis has been the SAB Liaison to the National Drinking Water Advisory Council (NDWAC) and was a member of the SAB's Chloroform Review Panel.

Dr. Ricardo DeLeon: Dr. De Leon is the Laboratory Manager for the Microbiology Unit of the Water Quality Laboratory of Metropolitan Water District of Southern California. The Microbiology Unit consists of the Compliance, Development and Reservoir Management Teams. His area of expertise is water microbiology, methods development for detection of microorganisms in water, inactivation of pathogens by disinfection and removal by treatment technology. He is currently working primarily on drinking water but his expertise also includes water reuse and public health issues associated with water. He has been working in the area of water microbiology since 1983.

Dr. De Leon holds a Bachelor's of Science in Microbiology and a Ph.D. in Microbiology and Immunology from the University of Arizona and did post-doctoral training in the Department of Environmental Sciences and Engineering of the University of North Carolina. He was also a faculty member at the University of California, Irvine Campus prior to joining Metropolitan Water District. He has been the principal or co-principal investigator on 22 research grants on methods development, disinfection of microorganisms and microbial aspects of water treatment technology. He has published more than 29 journal articles and book chapters on pathogen detection in environmental samples. He is currently serving in the Drinking Water Committee of the Science Advisory Board to the U.S. Environmental Protection Agency and on the National Research Council Committee on Indicators of Pathogens in Water.

Dr. Barbara Harper: Dr. Harper is an independent consultant in the areas of toxicology, risk assessment, CERCLA oversight, tribal water quality, and environmental management. She is affiliated with AESE, Inc (www.aeseinc.com). AESE's clientele consists entirely of Tribes/Alaska Natives. She is also an adjunct faculty member of Oregon State University's Public Health Department. Dr. Harper is a board-certified toxicologist (Diplomate of the American Board of Toxicology, 1989). She received her B.A. degree cum laude with departmental honors in biology from Occidental College in 1970. She received her PhD in genetics from the University of Texas at Austin in 1974. She was on the faculty of the University of Texas Medical Branch (UTMB) at Galveston in the Department of Preventive Medicine and Community Health; Division of Genetic and Environmental Toxicology. She then took a position with the Commonwealth of Pennsylvania' s Department of Environmental Resources, and developed and managed the Special Science and Resources Program. She taught risk assessment as an adjunct faculty member at Penn State Harrisburg during this time period as well. She was recruited by Battelle's Pacific Northwest National Lab as a program manager in risk assessment in 1993 (Hanford), where she started working on tribal risk issues. She joined the Yakama Nation ERWM Program in 1997 and developed methods for tribal risk assessment methods now in use at DOE and EPA, and continues to develop tribally-relevant methods for evaluating cumulative risks and impacts to tribal health and culture. Her research interests include contamination of fish and other tribal subsistence foods, the associated health effects, eco-cultural and human health risk method development, nutrition, anthro-toxicology, and tribal parameters for subsistence exposure assessment.

Dr. Irva Hertz-Picciotto: Irva Hertz-Picciotto, Ph.D., Professor. Dr. Hertz-Picciotto received her Master's of Arts in Biostatistics, a Ph.D. in Epidemiology and a Master's of Public Health from the University of California, Berkeley. She has held positions as Assistant, Associate and Full Professor at the University of North Carolina, Chapel Hill, and most recently joined the Department of Epidemiology and Preventive Medicine at the University of California, Davis. Dr. Hertz-Picciotto receives funding for research from the National Institutes of Health, the U.S. Environmental Protection Agency, the Medical Investigations of Neurodevelopmental Disorders (M.I.N.D.) Institute, State of California Office of Environmental Health Hazard Assessment, the Health Effects Institute, the Hawaii Heptachlor Research and Education Foundation, the International Life Sciences Institute, and the University of California, Berkeley.

Dr. Hertz-Picciotto serves on editorial boards for the two major journals in her field, namely Epidemiology and the American Journal of Epidemiology, as well as for Human and Ecological Risk Assessment. She served as Chair of the Institute of Medicine/National Academy of Science's Veterans and Agent Orange: Update 2000 committee, and is currently Chair of the IOM/NAS Update 2002 committee. Dr. Hertz-Picciotto is also a member of the Board of Scientific Counselors of the U.S. National Toxicology Program, the Food Safety in Europe Working Group sponsored by the International Life Sciences Institute, and the Carcinogen Identification Committee of the California Governor's Scientific Advisory Board. She is

currently President of the International Society for Environmental Epidemiology, and was recently a delegate to the NIEHS-sponsored U.S.-Vietnam Scientific Conference on the Environmental and Health Effects of the Vietnam War. She founded the Center on Environmental Health and Susceptibility at the University of North Carolina, Chapel Hill. For over ten years, she has taught methods for epidemiologic data analysis in Chapel Hill, and has taught courses on four continents. Dr. Hertz-Picciotto has published seminal papers on the use of epidemiology in quantitative risk assessment and is internationally renowned for her work in this field, as well as occupationally related cancer, environmental exposures, reproductive outcomes, and methods for epidemiologic research.

Dr. Joseph R. Landolph: Dr. Joseph R. Landolph is currently Associate Professor of Molecular Microbiology and Immunology and Pathology and a Member of the USC/Norris Comprehensive Cancer Center, in the Keck School of Medicine and Associate Professor of Molecular Pharmacology and Toxicology, in the School of Pharmacy, with tenure, at the University of Southern California (USC) in Los Angeles, California. Dr. Landolph received a B. S. degree in Chemistry from Drexel University in l971 and a Ph. D. in Chemistry from the University of California at Berkeley in l976, under the guidance of the late Professor Melvin Calvin, where he studied the metabolism of the chemical carcinogen, benzo(a)pyrene, and its ability to induce cytotoxicity in cultured mouse liver epithelial cells and morphological transformation in Balb/c 3T3 mouse fibroblasts. Dr. Landolph performed postdoctoral study in chemical carcinogenesis and chemically induced morphological and neoplastic cell transformation and mutagenesis at the USC/Norris Comprehensive Cancer Center at the University of Southern California under the late Professor Charles Heidelberger from l977-l980. Dr. Landolph was appointed Assistant Professor of Pathology in l980, and Associate Professor of Microbiology, Pathology, and Toxicology at USC in l987. Dr. Landolph has served as a grant reviewer for the U. S. E. P. A. Health Effects Panel, for special RFAs for the N. I.. E. H. S., and as an ad hoc member for the Chemical Pathology Study Section and the Al-Tox-4 Study Section of the N.I. H. Dr. Landolph has also been a member of the Carcinogen Identification Committee reporting to the Scientific Advisory Committee of the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency from 1994-2002. He is the recipient of numerous awards, including the Merck Award in Chemistry and the Superior Cadet Award in ROTC from Drexel University in l971, the Edmundson Teaching Award in the Dept. of Pathology at USC in l985, a Traveling Lectureship Award from the U. S. Society of Toxicology in l990, and a competitive American Cancer Society Postdoctoral Fellowship from l977-l979. Dr. Landolph receives funding from the Nickel Producers Environmental Research Association (NiPERA), from the National Cancer Institute, National Institutes of Health, from the National Institute of Allergy and Infectious Diseases, National Institutes of Health, and from the Office of Environmental Health Hazard Assessment of the Environmental Protection Agency of the State of California.

Dr. Landolph's research interests and activities include studies of the genetic toxicology and carcinogenicity of carcinogenic insoluble nickel compounds, carcinogenic chromium compounds, carcinogenic arsenic compounds, and carcinogenic polycyclic aromatic

hydrocarbons. His laboratory is focused on studying the ability of these carcinogens to induce morphological and neoplastic transformation of C3H/10T1/2 mouse embryo cells and the cellular and molecular biology of the transformation process. His laboratory is currently studying the ability of carcinogenic nickel compounds to induce activation of expression of oncogenes and inactivation of expression of tumor suppressor genes in cells transformed by insoluble carcinogenic nickel compounds, such as nickel subsulfide, crystalline nickel monosulfide, and green (high temperature) and black (low temperature) nickel oxides. His laboratory is also studying the molecular biology of chromium compound-induced cell transformation and the role of valence in cell transformation by various chromium-containing compounds. Dr. Landolph is an expert in chemically induced morphological and neoplastic transformation and chemically induced mutation in murine and human fibroblasts. He is the author of 32 peer-reviewed scientific publications, 21 book chapters/review articles, and has held peer-reviewed research grant support from the U. S. E. P. A., the U. S. National Cancer Institute, and the U. S. Institute of Environmental Health Sciences.

Dr. David L. Sedlak: Dr. David L. Sedlak is Associate Professor of Civil and Environmental Engineering at the University of California, Berkeley. Dr. Sedlak received has B.S. degree in Environmental Science from Cornell University in 1986. He received his Ph.D. degree in Water Chemistry from the University of Wisconsin in Madison in 1992 and served as a postdoctoral researcher at the Swiss Federal Institute for Environmental Science and Technology (EAWAG) from 1992 to 1994. He has received several notable awards including the NSF CAREER Award in 1997, the Hellman Family Faculty Award in 1996 and the American Chemical Society Graduate Student Award in 1991. His areas of research interest include analytical methods for measuring organic compounds in water, fate of chemical contaminants in water recycling systems, metal speciation and its effect on metal uptake and reaction, environmental photochemistry and ecological engineering. David Sedlak receives research funding from federal (i.e., National Science Foundation) and state (i.e., University of California Water Resources Program, University of California Toxic Substances Research and Teaching Program) programs. He also receives funding from a private foundation (i.e., National Water Research Institute) and
several water industry sponsored foundations (i.e., American Water Works Association Research Foundation, Water Environment Research Foundation and WateReuse Foundation)

Dr. Philip C. Singer: Dr. Philip C. Singer is the Dan Okun Professor of Environmental Engineering in the Department of Environmental Sciences and Engineering in the School of Public Health at the University of North Carolina at Chapel Hill. He directed the Water Resources Engineering Program at UNC for 19 years and currently directs UNC's Drinking Water Research Center. He has conducted research on chemical aspects of water and wastewater treatment and on aquatic chemistry for the past 35 years, and has published more than 160 papers and reports in these areas. For the past 27 years, Dr. Singer's research has focused on the formation and control of disinfection by-products in drinking water. In 1993, Dr Singer was selected for the Freese Lecture by the American Society of Civil Engineers, in 1995 he was

given the A.P. Black Research Award by the American Water Works Association, and in 1999 he received the Fuller Award from the North Carolina section of the American Water Works Association.

Dr. Singer has been active in the American Water Works Association, serving as a past Chair and Trustee of the Research Division, and has served on the Research Advisory Council of the American Water Works Association Research Foundation. He was on the editorial board of Ozone Science and Engineering and is a past associate editor of Environmental Science and Technology. He was a member of the Water Science and Technology Board of the National Research Council, and served on the National Research Council's Committee on Drinking Water Contaminants. He is currently on the Board of Directors of the Water Environment Research Foundation and the U.S. Environmental Protection Agency Science Advisory Board's Drinking Water Committee. In 1995, Dr. Singer was inducted into the National Academy of Engineering.

Dr. Laura Steinberg: Dr. Steinberg is Associate Professor in the Civil and Environmental Engineering Department of Tulane University. She holds a B.S.E. in Civil and Urban Engineering from the University of Pennsylvania and an M.S. and Ph.D. in Environmental Engineering from Duke University. Her research currently focuses on water quality modeling and natural hazards management. She has recently completed modeling studies of arsenic concentrations in water distribution systems and transport processes in contaminated sediments, and is working on spatial statistical modeling of heavy metals and PCB's in contaminated sediments. During the last two years, she has spent several months in Turkey, investigating the impacts of the devastating earthquake of 1999 on industrial infrastructure and the environment, and evaluating the effectiveness of chemical risk management procedures. Dr. Steinberg is the incoming chair of the American Society of Civil Engineer's National Environmental Policy Committee, and a past member of the ASCE's National Water Policy Committee. She serves on the Water Environment Federation's Disinfection Committee, and is a fellow of the Institute of Civil Infrastructure Systems and a former member of the Chapel Hill, NC Planning Board. She has consulted to the USEPA's Science Advisory Board on technology diffusion, and the Department of Energy on risk assessment. Prior to her work in academia, Dr. Steinberg was Environmental Engineering Department Head at the planning and engineering firm of Louis Berger International, and Business Development Manager at Geraghty and Miller, an environmental engineering firm. She also had the distinct honor of serving as a US Congressional Page while attending high school.

Ms. Susan Teefy: Susan Teefy currently serves on the staff of the Water Quality and Treatment Solutions, Inc. Susan formerly served as the Operations Engineer for the Alameda County Water District in Fremont California. Since 1992, she has worked with this public water agency to ensure compliance with drinking water regulations, and analyze and optimize plant operations. She has held positions of increasing authority with the District, including Manager of the Water Production Division, which is responsible for the operation and maintenance of three water treatment plants and the distribution system. Ms. Teefy has also supervised ACWD's

Environmental Engineering section, where she developed and implemented water quality monitoring programs and conducted plant optimization studies. Her particular interest is surface water treatment (particulate removal processes) and ozone disinfection. Prior to working with the Alameda County Water District, she worked at the East Bay Municipal Utility District in Oakland California, providing technical support for surface water treatment plant operations. Ms. Teefy also worked for the U.S. Environmental Protection Agency, Region 9, in San Francisco where she managed the drinking water program on Indian Lands in California.

Ms. Teefy has a bachelor's degree in civil engineering from the University of California at Berkeley, and a master's degree in environmental engineering from the University of North Carolina at Chapel Hill. She is a registered civil engineer in the state of California, and a licensed water treatment plant operator (Grade 5, highest level). In 1985 she was awarded USEPA's Bronze Medal for outstanding service for significantly improving compliance with drinking water regulations on California Indian Lands. In 1989 she was the first recipient of the AWWA Larson Aquatic Research Support (LARS) Scholarship. In 1991 she received AWWA's Academic Achievement award for her Master's thesis. She has chaired AWWA's California Nevada Section Research Committee, and currently is a member of AWWA's national coagulation and filtration committee. Ms. Teefy has been a Project Advisory Committee member on several projects funded by the AWWA Research Foundation, and a peer-reviewer for the Journal of AWWA. She has served on AWWARF's Unsolicited Proposal Review Committee, as well as AWWARF and EPA-convened Expert Panels regarding water treatment issues. She has given numerous presentations at international AWWA and International Ozone Association conferences

Dr. Gary A. Toranzos: Gary A. Toranzos is a professor of microbiology in the Department of Biology, University of Puerto Rico, Rio Piedras Campus. He got his Ph.D. in 1985 at the University of Arizona in Tucson. His research interests are varied and include water microbiology, the ecology of enteric pathogens and the development of indicators of risk. He has published extensively on all the above subjects and is currently working on projects dealing with bacterial nitrification and denitrification in soils, as well as development of new indicators of biological contamination in waters. Dr. Gary A. Toranzos receives funding from NASA to study nitrifying and denitrifying microbial communities in tropical soils. He also has funding from
the USGS (Water Resources Center, University of the U.S. Virgin Islands) to study the microbial water quality of bathing beaches in Puerto Rico and St. Thomas, U.S.V.I.

He is currently working at the National Science Foundation as a Program Director in the Division of Molecular and Cellular Biosciences.

He is an elected member of the American Academy of Microbiology, a Fellow of the American Association for the Advancement of Science and is serving a term as member of the Technical Advisory Board of the Water Environment Research Foundation

Dr. Rhodes Trussell: Dr. R. Rhodes Trussell is Director of the Water Knowledge Center and Senior Vice President at MWH,Inc. He has served in that Role since September 2001. For several years prior to that he served as the firm's Director of Corporate Development and as a member of the firm's Board of Directors. The bulk of Dr.Trussell's technical career has been spent advising municipal utilities, both in the US and abroad, concerning problems of drinking water quality and treatment. Dr. Trussell is active in American Water Works Association and in the International Water Association where he serves on the program committee, the Strategic Council and the editorial board for North America. He also serves on the Water Science and Technology Board for the National Resource Council where he has served on several specific Committees, most recently those on potable reuse, the CCL, and indicators for pathogens in water. Dr. Trussell serves on the Magazine Board for Environmental Science and Technology, as a member of the Industrial Advisory Board for Engineering program at UC Riverside and as Chair of the Industrial Advisory Board for the Department of Civil Engineering at UCLA. Dr. Trussell received his B.S.(1966), M.S.(1967), and Ph.D.(1972) in Environmental Engineering from the University of California at Berkeley. He was elected to the National Academy of Engineering in 1995 and serves on the Peer Committee for Civil Engineering. He is currently the Chair of the SAB's Drinking Water Committee.